THAT WHICH IS CLAIMED IS:

1. A battery charger comprising:

a charger connector to be coupled to a corresponding device connector of a portable device including a rechargeable battery, the portable device and rechargeable battery each respectfully having a portable device type and a rechargeable battery type associated therewith from among a plurality of different portable device types and different battery types;

a charging circuit connected to said charger connector; and

a controller connected to said charger connector and said charging circuit for causing a portable device connected to said charger connector to identify its corresponding portable device type and its corresponding rechargeable battery type, and for causing said charging circuit to charge the rechargeable battery based thereon.

2. The battery charger of Claim 1 wherein different portable device types have at least one different portable device charging parameter; wherein different battery types have at least one different battery charging parameter; and wherein said controller selects at least one actual charging parameter to charge the rechargeable battery based upon a comparison of the at least one different portable device charging parameter and at least one different battery charging parameter.

3. The battery charger of Claim 2 wherein said controller selects the at least one actual charging parameter based upon a limiting one of the at least one different portable device charging parameter and the at least one different battery charging parameter.

4. The battery charger of Claim 2 wherein said controller further causes the portable device to identify a battery charge level; and wherein said controller further selects the at least one actual charging parameter based upon the battery charge level.

5. The battery charger of Claim 2 wherein said controller enters a learning mode for learning the at least one different portable device or battery charging parameter upon receiving a learning mode signal therefrom.

6. The battery charger of Claim 2 further comprising at least one memory connected to said controller for storing the at least one different portable device charging parameter and the at least one different battery charging parameter.

7. The battery charger of Claim 1 wherein the at least one actual charging parameter comprises at least one of a voltage parameter, a current parameter, and a charging time.

8. The battery charger of Claim 1 wherein said controller further provides an error signal to the

portable device based upon an unknown portable device type or rechargeable battery type.

9. The battery charger of Claim 1 wherein said controller monitors said charging circuit to detect a charging error during charging of the rechargeable battery.

10. The battery charger of Claim 9 further comprising an indicator connected to said controller for providing an error indication upon detecting the at least one charging error.

11. The battery charger of Claim 1 wherein said charger connector also carries communications signals between the portable device and a host device connected thereto.

12. The battery charger of Claim 1 wherein said charger connector also carries communications signals between said controller and a host device connected thereto.

13. The battery charger of Claim 12 wherein the communications signals relate to at least one charging parameter.

14. The battery charger of Claim 1 wherein said charger connector comprises a universal serial bus (USB) connector.

15. A battery charging system comprising:

a portable device comprising a device connector and including a rechargeable battery, the portable device and rechargeable battery each respectfully having a portable device type and a rechargeable battery type associated therewith from among a plurality of different portable device types and different battery types; and

a battery charger comprising

a charger connector to be coupled to said device connector,

a charging circuit connected to said charger connector, and

a controller connected to said charger connector and said charging circuit for causing the portable device to identify its corresponding portable device type and its corresponding rechargeable battery type, and for causing said charging circuit to charge the rechargeable battery based thereon.

16. The system of Claim 15 wherein different portable device types have at least one different portable device charging parameter; wherein different battery types have at least one different battery charging parameter; and wherein said controller selects at least one actual charging parameter to charge the rechargeable battery based upon a comparison of the at least one different portable device charging parameter and at least one different battery charging parameter.

17. The system of Claim 16 wherein said controller selects the at least one actual charging parameter based upon a limiting one of the at least one

different portable device charging parameter and the at least one different battery charging parameter.

18. The system of Claim 16 wherein said controller further causes said portable device to identify a battery charge level; and wherein said controller further selects the at least one actual charging parameter based upon the battery charge level.

19. The system of Claim 16 wherein said controller enters a learning mode for learning the at least one different portable device or battery charging parameter upon receiving a learning mode signal therefrom.

20. The system of Claim 15 wherein said controller monitors said charging circuit to detect a charging error during charging of the rechargeable battery.

21. The system of Claim 15 wherein said charger connector also carries communications signals between the portable device and a host device connected thereto.

22. The system of Claim 15 wherein said charger connector also carries communications signals between said controller and a host device connected thereto.

23. The system of Claim 22 wherein the communications signals relate to at least one charging parameter.

24. The system of Claim 15 wherein said charger connector and said device connector each comprises a universal serial bus (USB) connector.

25. A battery charging method for a rechargeable battery carried by a portable device, the portable device and rechargeable battery each respectfully having a portable device type and a rechargeable battery type associated therewith from among a plurality of different portable device types and different battery types, the method comprising:

coupling a device connector of the portable device to a corresponding charger connector;

connecting a charging circuit to the charger connector; and

causing the portable device to identify its corresponding portable device type and its corresponding rechargeable battery type via the charger connector, and causing the charging circuit to charge the rechargeable battery based thereon.

26. The method of Claim 25 wherein different portable device types have at least one different portable device charging parameter; wherein different battery types have at least one different battery charging parameter; and further comprising selecting at least one actual charging parameter to charge the rechargeable battery based upon a comparison of the at least one different portable device charging parameter and at least one different battery charging parameter.

27. The method of Claim 26 wherein selecting comprises selecting the at least one actual charging parameter based upon a limiting one of the at least one different portable device charging parameter and the at least one different battery charging parameter.

28. The method of Claim 26 further comprising causing the portable device to identify a battery charge level of the rechargeable battery; and wherein selecting comprises selecting the at least one actual charging parameter further based upon the battery charge level.

29. The method of Claim 25 wherein the at least one actual charging parameter comprises at least one of a voltage parameter, a current parameter, and a charging time.

30. The method of Claim 25 further comprising providing an error signal to the portable device based upon an unknown portable device type or rechargeable battery type.

31. The method of Claim 25 further comprising monitoring the charging circuit to detect a charging error during charging of the rechargeable battery.

32. The method of Claim 25 wherein the charger connector also carries communications signals between the portable device and a host device connected thereto.

33. The method of Claim 25 wherein the charger connector comprises a universal serial bus (USB) connector.